AMENDMENTS TO THE CLAIMS

Docket No.: D0504.70009US00

Applicant has submitted a new complete claim set. This listing of claims will replace all prior versions and listings of claims in the application:

- 1-23. (Canceled)
- 24. (Currently Amended) A method of modulating an immune response in a subject, comprising:

administering to a subject in need of such immune modulation an amount of a compound of claim 1 effective to enhance the subjects subject's immune response to an antigen, wherein the compound is of the formula:

$$R_1$$
 X
 Y
 R_2
 R_4
 R_3

wherein,

R₁ is alkyl, aryl, or heterocyclyl;

 R_2 is H, alkyl, aryl, heterocyclyl, OR_3 , or $N(R_3)_2$;

R₃ is H, alkyl, aryl, or heterocyclyl;

 $\underline{R_4}$ is H, CN, halogen, $\underline{CF_3}$, $\underline{CO_2R_3}$, or $\underline{C(O)N(R_3)_2}$;

X is S, SO₂, O, or NR₃; and

Y is S, O, or NR_3 .

25-28. (Canceled)

29. (Previously presented) The method of claim 24 wherein the subject is a subject having or at risk of having a cancer expressing a cancer antigen.

3

30-44. (Canceled)

- 45. (Previously presented) The method of claim 24 wherein the subject is a subject having or at risk of having an infectious disease.
- 46-67. (Canceled)
- 68. (Currently Amended) A method of enhancing MHC Class II catalyzed peptide exchange comprising contacting a cell bearing a MHC Class II molecule with a compound of claim1 in the presence of a peptide that binds MHC class II, wherein the compound is of the formula:

$$R_1$$
 X Y R_2 R_3

wherein,

R₁ is alkyl, aryl, or heterocyclyl;

 R_2 is H, alkyl, aryl, heterocyclyl, OR_3 , or $N(R_3)_2$;

R₃ is H, alkyl, aryl, or heterocyclyl;

 R_4 is H, CN, halogen, CF_3 , CO_2R_3 , or $C(O)N(R_3)_{2}$;

 \underline{X} is \underline{S} , $\underline{SO_2}$, \underline{O} , or $\underline{NR_3}$; and

Y is S, O, or NR_3 .

69-113. (Canceled)

Docket No.: D0504.70009US00

114. (New) The method of claim 24, wherein

R₁ is alkyl, aryl, or heterocyclyl;

 R_2 is H, aryl, heterocyclyl, OR_3 , or $N(R_3)_{2;}$

R₃ is aryl or heterocyclyl;

 R_4 is H, CN, halogen, CF_3 , or $C(O)N(R_3)_{2}$;

X is S, SO_2 , or O; and

Y is S or O.

115. (New) The method of claim 24, wherein

R₁ is alkyl, aryl, or heterocyclyl;

 R_2 is H, OR_3 , or $N(R_3)_2$;

R₃ is aryl or heterocyclyl;

 R_4 is H, CN, F, Cl, Br, or CF_{3} ;

X is S; and

Y is S.

116. (New) The method of claim 24, wherein the compound is represented by the formula:

5

- 117. (New) The method of claim 24, further comprising administering an antigen to the subject.
- 118. (New) The method of claim 117, wherein the antigen is a cancer antigen.
- 119. (New) The method of claim 117, wherein the antigen is a viral antigen, a bacterial antigen, a fungal antigen or a parasitic antigen.
- 120. (New) The method of claim 68, wherein

R₁ is alkyl, aryl, or heterocyclyl;

 R_2 is H, aryl, heterocyclyl, OR_3 , or $N(R_3)_{2:}$

R₃ is aryl or heterocyclyl;

 R_4 is H, CN, halogen, CF_3 , or $C(O)N(R_3)_{2}$;

X is S, SO_2 , or O; and

Y is S or O.

121. (New) The method of claim 68, wherein

R₁ is alkyl, aryl, or heterocyclyl;

 R_2 is H, OR_3 , or $N(R_3)_{2}$;

R₃ is aryl or heterocyclyl;

 R_4 is H, CN, F, Cl, Br, or CF_{3} ;

X is S; and

Y is S.

122. (New) The method of claim 68, wherein the compound is represented by the formula:

6

- 123. (New) The method of claim 68, further comprising administering an antigen to the subject.
- 124. (New) The method of claim 123, wherein the antigen is a cancer antigen.
- 125. (New) The method of claim 123, wherein the antigen is a viral antigen, a bacterial antigen, a fungal antigen or a parasitic antigen.